

Figure 1: Single Transceiver on a Line

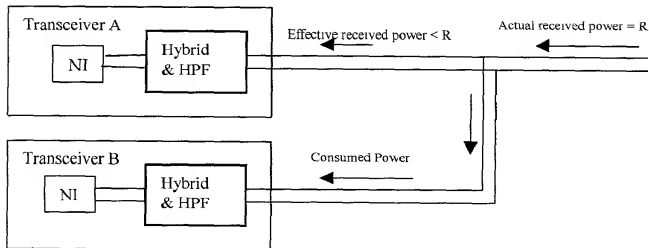


Figure 2: Attenuation of the Received Signal

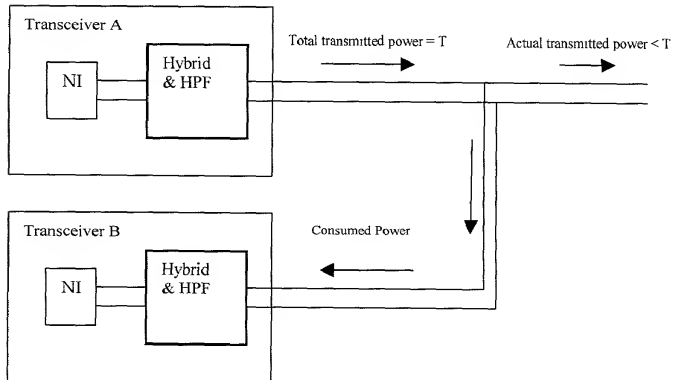


Figure 3: Attenuation of Transmitted Signal

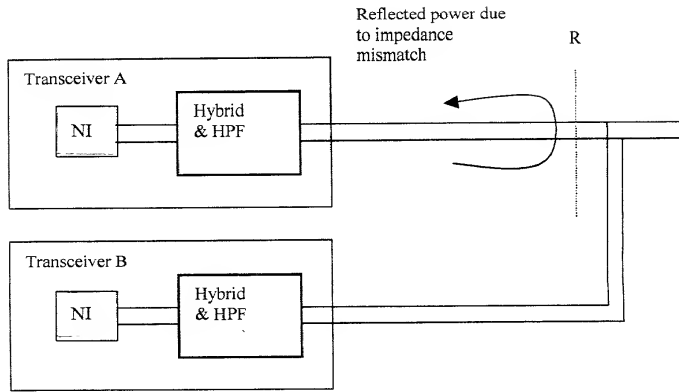


Figure 4: Echo of the Transmitted Signal

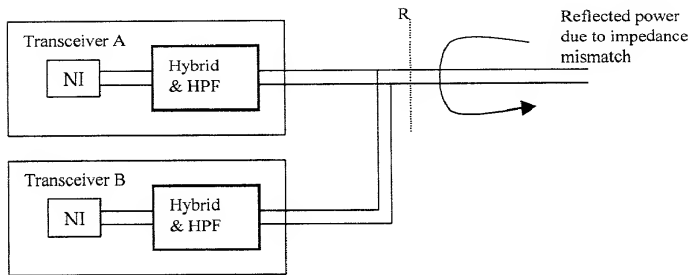


Figure 5: Echo of the Received Signal

Legend

NI: Normal Impedance

HI: High Impedance

HPF: High Pass Filter

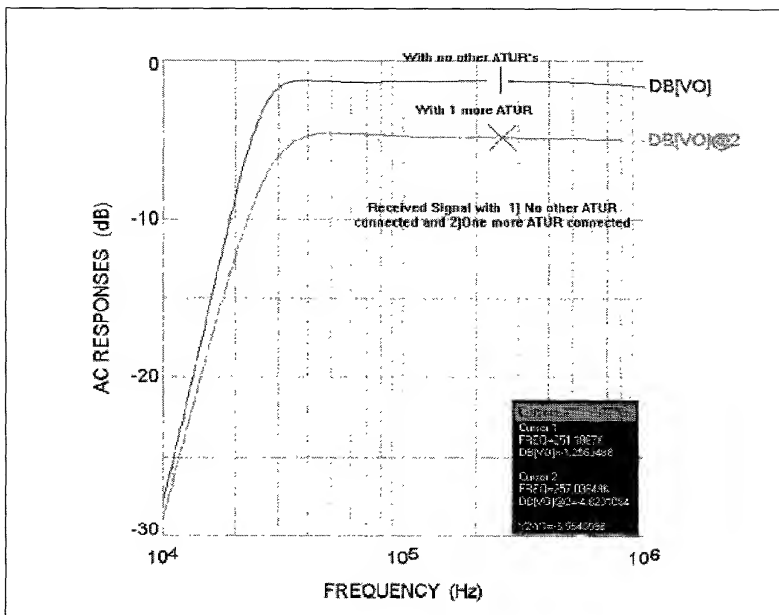


Figure 6: Reduction in the Signal Received by the ATU-R

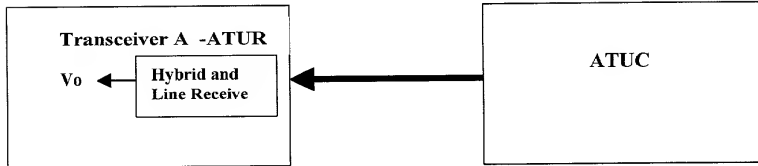


Figure 6a: Signal received when only one ATU-R is connected

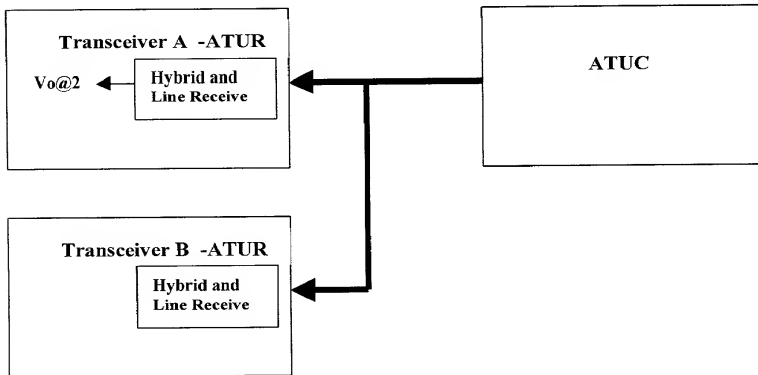


Figure 6b: Signal received when an additional ATU-R is connected to the same line

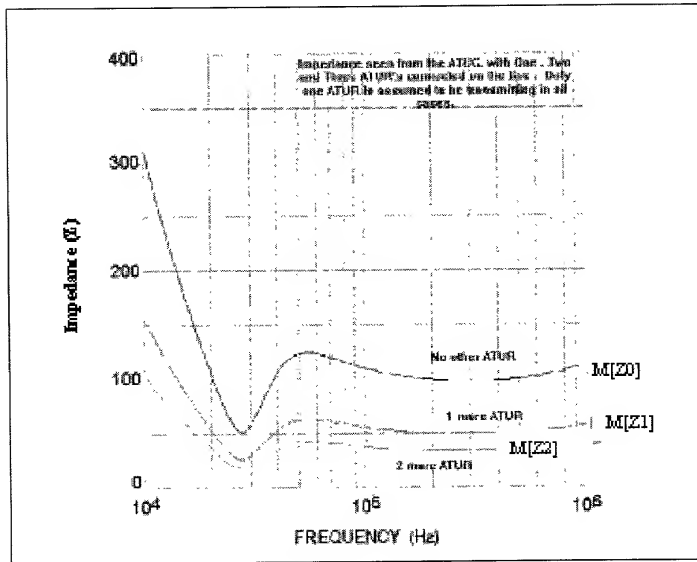


Figure 7: Reduction in the Effective Impedance with Multiple ATU-Rs

0971113.012001

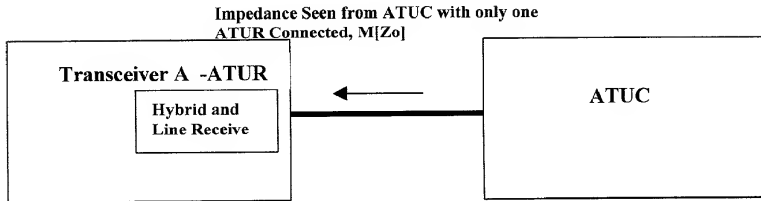


Figure 7a: Impedance seen by the ATU-C with one ATU-R connected to the line

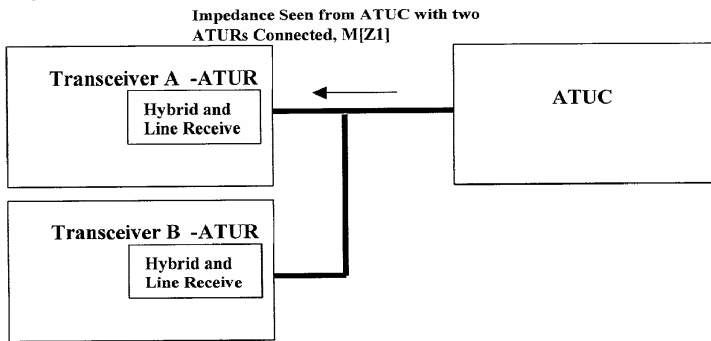


Figure 7b: Impedance seen by the ATU-C with two ATU-Rs connected to the line

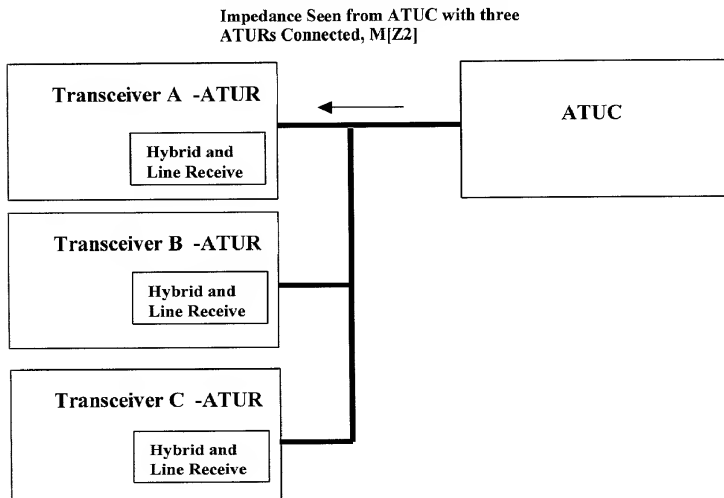


Figure 7c: Impedance seen by the ATU-C with three ATU-Rs connected to the line

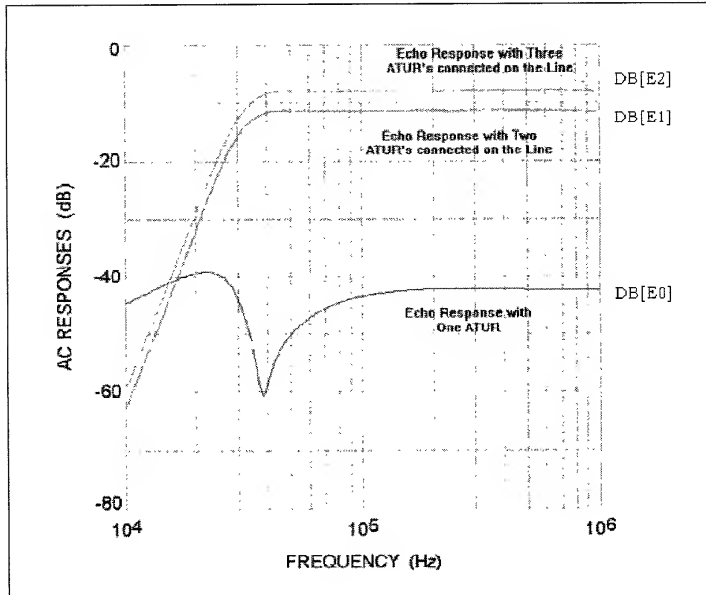
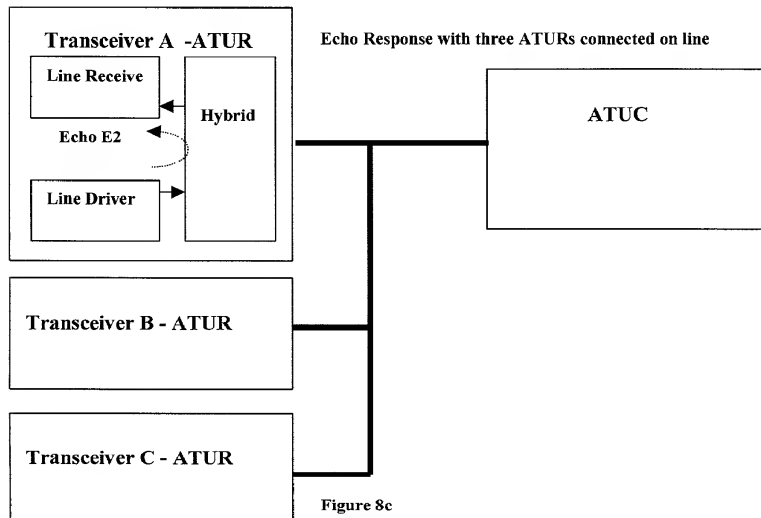
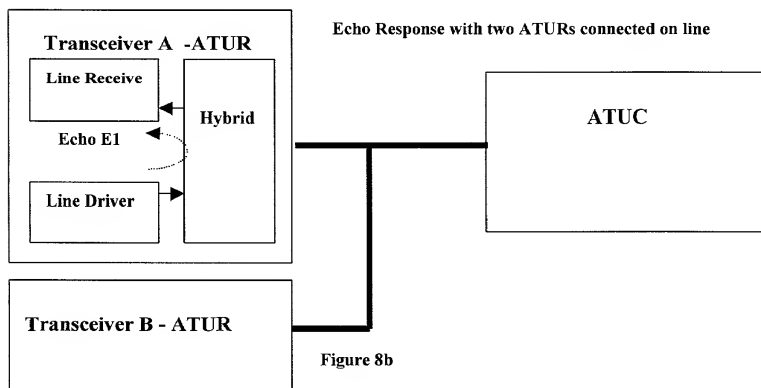
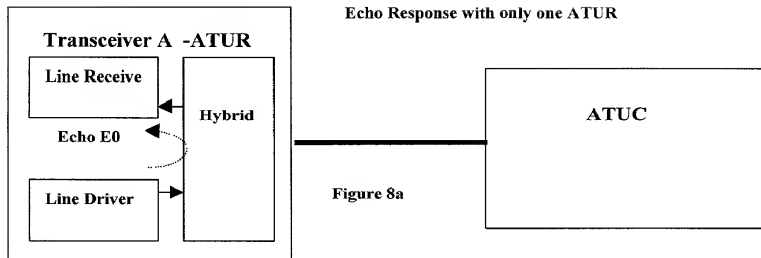
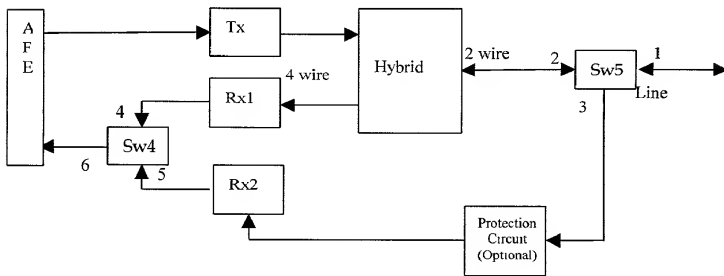
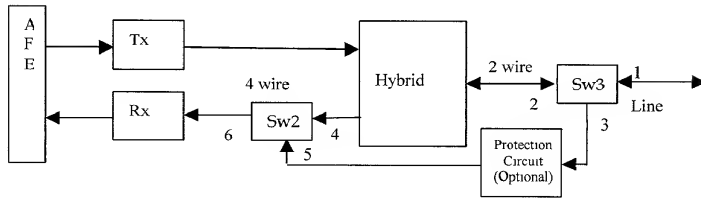
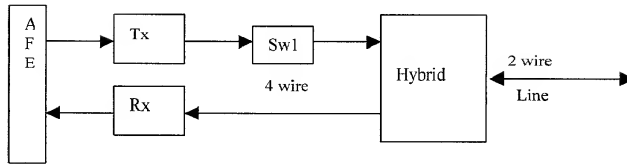


Figure 8: Increase in the Echo at the ATU-R due to other ATU-Rs





Legend: Tx: Transmitter, Rx: Receiver, Sw: Switch, AFE: Analog Front End.

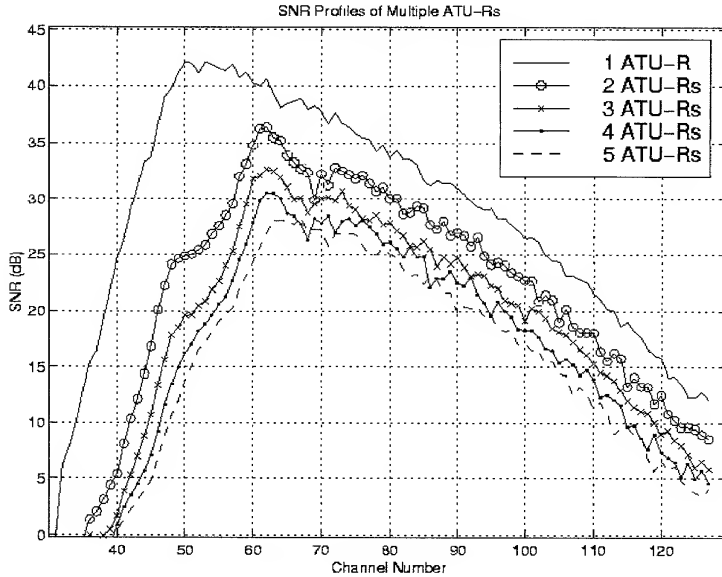


Figure 12: Simulation results of SNR profiles for multiple ATU-Rs

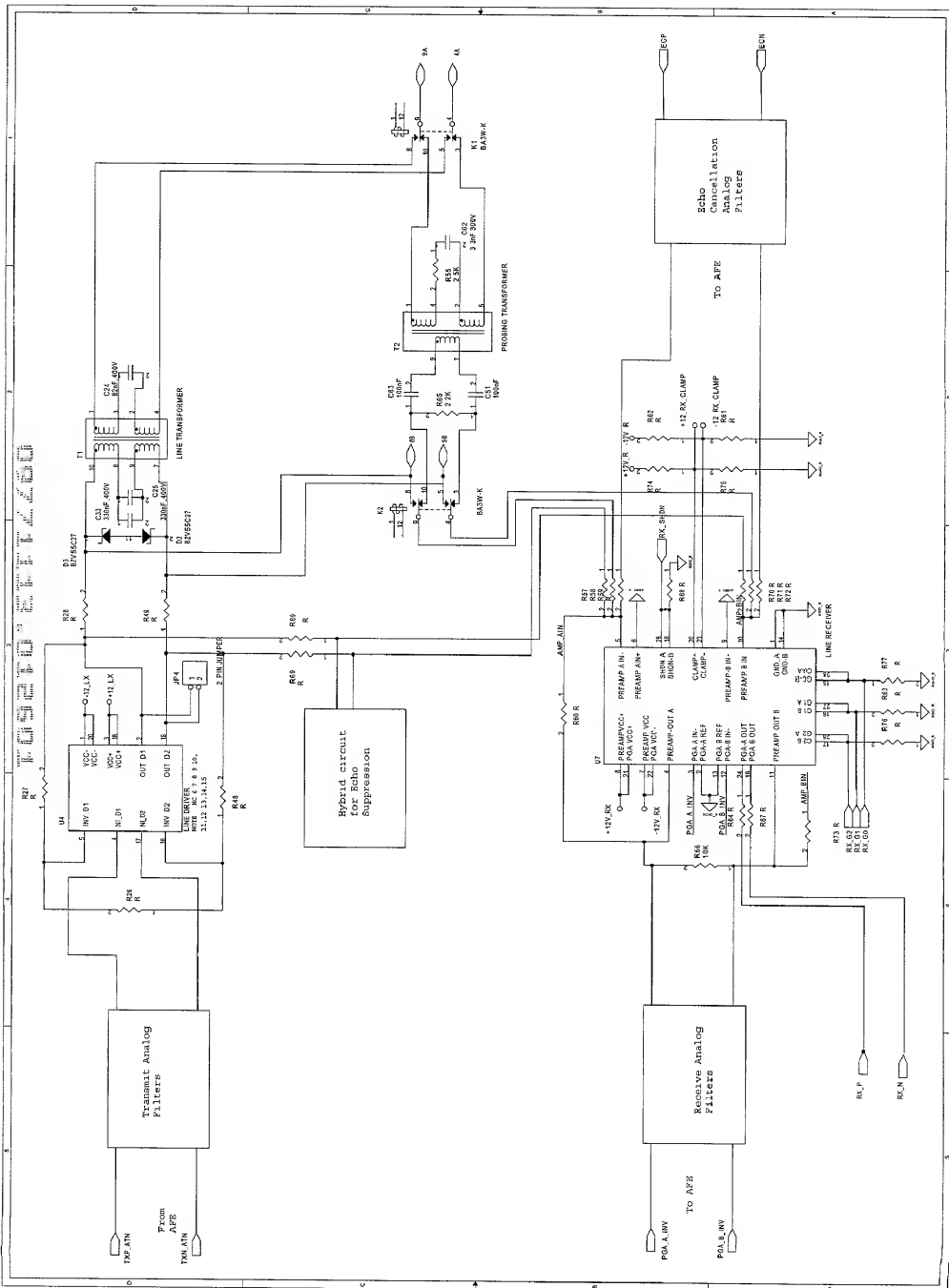


Figure 13